

**President's Address
National Conference on Weights and Measures
Sparks, Nevada
July 15, 2003**

“Addressing the Challenges”

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Introduction

It is a pleasure to be here this afternoon representing NIST Director Dr. Arden Bement. Dr. Bement regrets that he was unable to participate in the meeting this year. He greatly enjoyed participating last year and meeting the leaders of the NCWM. He appreciates the critical role that industry and the regulators play in the U.S. commercial measurement system.

The complex infrastructure of the commercial measurement system is something that most consumers take for granted. We are fortunate that this infrastructure has functioned so well over the years; however, the economic slowdown and the budget crises facing many states are forcing major changes in many weights and measures programs, frequently in the form of budget cuts and staff and program reductions.

Many programs are being asked to find their own sources of revenue. But weights and measures programs have always had difficulty competing for funds with education, health care, welfare, and law enforcement. In this post 9/11 era, weights and measures must also compete for funds with Homeland Security.

And nor has industry been immune to the economic downturn. Many companies have been downsizing for years to increase their competitiveness, but the economic slowdown has reduced even further their ability to participate in meetings and activities not considered to have a direct positive effect on the bottom line.

The NCWM theme for this year, “Moving Strategically into the Future,” is very appropriate in these challenging times. We all need to reassess our goals and our approaches to achieving those goals, and to set a course for improvement despite the budget constraints we all face. The NCWM has focused its activities on the strategic objectives it developed several years ago. As Ross Anderson pointed out in his letter of invitation to this meeting, the NCWM is facing some fundamental changes in its approach to the National Type Evaluation Program, the use of international standards, and the structure of the NCWM itself.

As has been the case many times in the past, both NIST and the NCWM have many parallel issues as they move “strategically into the future.” I’d like to touch on several of those issues. After that, I’ll talk briefly about Challenges and Goals before concluding.

Parallel Issues

The same conditions that are creating budget cuts in state and local weights and measures programs are also resulting in a stagnant budget for NIST. We in weights and measures, both in state and local government and at NIST, must explain and demonstrate the importance of our programs and the value we add to our partners and customers. Like NCWM, NIST as a whole is also reviewing its programs and has identified a set of strategic focus areas and directions for the future.

One activity that Technology Services is leading on behalf of NIST is to describe the national measurement system and why that system is so important to the country, and also to describe NIST’s role within that system, and in turn, why that role is so important to the country. Ultimately – and I must stress that this will be a long-term effort – we hope to be able to advise the country – that is, the Administration and Congress – on what needs to be done – not only by NIST, but by

other key players as well – to address the challenges we face in the national measurement system, and on the consequences of not addressing those challenges.

The commercial measurement system is obviously a critical component of the national measurement system. Metrologists, laboratories, manufacturers, packagers, retailers, and regulators are critical contributors to this system, which needs effective, but balanced, technical regulations and the enforcement of those regulations to promote fair competition, to facilitate value comparisons, and to promote consumer protection. I note the considerable similarity between the NIST effort on the National Measurement System and the effort initiated by Aves Thompson on the Fair Measurement Act. I want to commend Aves for his vision, leadership, and hard work in championing this effort. NIST looks forward with enthusiasm to further discussions with Aves, Dennis Ehrhart, Dave Frieders, and all other interested parties.

The effects of globalization represent another area of common interest for NIST and the NCWM. As you heard this morning in the excellent presentation by Chuck Ehrlich and Gilles Vinet, weights and measures technical requirements are part of this global picture.

The NCWM, the Scale Manufacturers Association, and NIST are giving joint presentations at the regional weights and measures association meetings on the importance of aligning U.S. and international legal metrology standards. The alignment of U.S. and OIML standards is not a one-way street. The United States must present effective, technical arguments for its positions. And once acceptable international documents are developed – documents that facilitate trade but do not restrict U.S. technology – we must collectively push to align the U.S. legal metrology standards with the international standards.

In fact, recognition of these issues is what led us to reorganize within Technology Services to bring our efforts in national and international legal metrology together in one organization – the new Weights and Measures Division (WMD). We have already seen significant synergies and benefits from this change.

The current process to revise OIML Recommendations 60 and 76 for load cells and scales, respectively, presents an excellent opportunity for the United States to propose numerous changes to these standards. The U.S. National Working Group for these OIML standards will meet in August to develop the changes that the U.S. will propose and to determine where the U.S. should consider changes to NIST Handbook 44 and NCWM Publication 14. To facilitate these discussions, NIST supported a detailed comparison of the relevant OIML and U.S. standards.

This morning Gilles Vinet talked about the importance that Canada places on the revision of OIML R 117 for liquid-metering devices for liquids other than water. The U.S. National Working Group has been working closely with Canada to develop changes to this important international standard. As for load cells and scales, NIST plans a detailed comparison of the relevant OIML and U.S. standards.

The participation of U.S. industry and U.S. regulatory officials in the review of draft international documents is critical if these documents are to reflect U.S. practices and approaches. Hence, NIST is supporting the participation of several weights and measures officials in the U.S. National Working Groups.

The labeling of consumer packages is another area of mutual interest. As a result of feedback from industry partners, NIST is working to change the Federal Fair Packaging and Labeling Act and other Federal labeling regulations to give packagers the *option* to label the net contents of consumer packages as they do today – that is, in both inch-pound and metric units – *or* to label the contents of packages in metric units only. Most states, through their weights and measures laws and regulations, already provide manufacturers with this labeling option for products that fall under state packaging and labeling requirements only. Last November, NIST sponsored a forum on the proposed changes to the Fair Packaging and Labeling Act to provide interested parties with an opportunity to discuss their different perspectives and to identify potential problems. Lou Straub represented the NCWM in this forum and described the leadership role that the weights and measures community has taken to remove regulatory barriers to the use of metric units. We are planning another forum for this coming November to continue the dialog and to reduce the barriers even further.

It is critical that packagers, retailers, manufacturers of shelf labeling equipment and products, and regulatory officials develop consensus guidelines for labeling and unit pricing in metric units. The labeling guidelines will help companies avoid costly labeling errors and get labeling right the first time. The unit pricing guidelines will reduce confusion in the marketplace and facilitate value comparisons. When these changes occur, effective weights and measures control will be

essential to ensure that packages contain the correct net content and that unit price labels are accurate. Weights and measures enforcement must maintain confidence during the transition.

The need for recognized quality systems for their laboratory measurement services is yet another parallel issue facing NIST and weights and measures laboratories. NIST is now replacing its current quality system with a comprehensive new quality system based on ISO/IEC 17025. One of the external drivers for NIST to follow 17025 was the Mutual Recognition Arrangement of the International Committee on Weights and Measures. This Arrangement requires that national measurement institutes like NIST have a suitable quality system, preferably 17025, in place. A second external driver was the 2002 National Research Council Cross-Cut Panel on Measurement Services, which recommended that NIST adopt a quality system that more visibly conformed to the quality systems used by its customers, namely 17025. L.F. Eason of North Carolina served on this panel. Last night I reported on this activity at the NCWM Metrology Subcommittee meeting.

I know that Georgia Harris and Diane Lee of the Weights and Measures Division have promoted the development of 17025-based quality systems for the state weights and measures laboratories for some time through the incorporation of 17025 requirements in NIST Handbook 143. I am extremely pleased to note that this year every operational state weights and measures laboratory has submitted a quality manual to WMD. Moreover, eight state laboratories have obtained accreditation from NIST's National Voluntary Laboratory Accreditation Program (NVLAP) and many others are in the process. I commend the laboratory administrators and metrologists for their commitment to implementing quality systems for their measurement services.

Challenges

I'd now like to say a few words about challenges. As I indicated at the outset, we all face the challenge of lack of resources. The current economic crises in the funding of weights and measures programs have changed – and appear to be permanently changing – the way weights and measures activities are funded and carried out. States report that they are being forced to implement a number of revenue-generating activities just to survive. In fact, some states are only performing inspections related to generating revenue, which leaves many areas of the commercial measurement system unregulated. Unfortunately, experience has shown that when weights and measures areas are left unregulated, compliance tends to deteriorate, creating unfair competitive situations and loss of equity in the marketplace. Under these conditions, everyone loses except the unethical business operator.

A key challenge – and opportunity – is this: “How can weights and measures officials, industry, and NIST work together more effectively to achieve greater compliance with legal metrology requirements?” Of course, this Conference brings its members together to work collectively on the standards for weights and measures. In this era of reduced budgets, however, we must seek an even higher level of cooperation in the application of these standards in the retail marketplace. We must explore ways in which weights and measures programs can be more *proactive* and more *creative* in achieving compliance with legal metrology standards, even before products appear on the retail shelves.

Your incoming Chairman, Dennis Ehrhart, has reported on Arizona's effective programs in the areas of corporate education and public relations. These programs stress gaining compliance through the corporate use of correct practices, thereby reducing the need and frequency of weights and measures inspections required to achieve the same results.

We simply must find ways for weights and measures programs to maintain a *sufficient* level of inspection across the entire range of their regulatory responsibilities if we are to continue to ensure equity in the marketplace.

Goals

We must remember that a primary objective of weights and measures enforcement is not merely to conduct inspections, but to achieve compliance with legal metrology requirements. As in the past, achieving this goal requires a cooperative effort. The NCWM has been a successful example of how state and local weights and measures representatives, industry, consumers, and the federal government can work together collaboratively to benefit the commercial measurement system. The input from both weights and measures regulatory officials and industry is critical to develop balanced and practical technical regulations for the commercial measurement system.

Technology Services has taken the initiative within NIST to use the Baldrige National Quality Program Criteria for Performance Excellence as a framework for improving its products, services, and operations. As we have studied the

Baldrige criteria and the experiences of winners of the National Quality Award – and they'll all tell you that their secrets are not secret – we have learned that many factors are critical to success. These include the following:

- Identify your core activities and responsibilities;
- Identify the requirements that are most important to your customers;
- Identify where you can add the most value;
- Establish organizational goals so that success will benefit the larger system, not just the internal organization;
- Make sure your goals are aligned with those of your partners and customers; and
- Develop and then implement sound, long-term strategies and plans for achieving those goals.

As part of these efforts within Technology Services, WMD has adopted four long-term goals:

- Promote uniform standards and practices in legal metrology;
- Improve the efficiency and effectiveness of the national weights and measures system;
- Facilitate U.S. exports by aligning national and international legal metrology standards; and
- Facilitate the transition to the metric system.

For each of these long-term goals, WMD has developed 3- to 5-year objectives, strategies, desired outcomes, measures, and action plans.

WMD's plans reflect input and feedback from partners and customers. These partners and customers have indicated that they consider NIST's technical expertise and objectivity in legal and laboratory metrology to be critical core activities, and that they expect NIST to provide expert technical analyses, advice, training, and assistance to industry, weights and measures officials, and metrologists.

WMD is currently reassessing its operations and trying to evaluate the current state of flux in weights and measures regulatory programs. As part of these efforts, WMD plans to meet with additional focus groups from industry and weights and measures programs to discuss the current situation and to explore partner and customer needs and requirements. These focus groups will serve both as input and as a "reality check" on WMD's basic assumptions and approaches. As a result of these meetings, WMD will either reaffirm its current objectives and strategies or it will change them to better meet the needs of the commercial measurement system.

Conclusion

It is more important now than ever for all of us to demonstrate the impact and value-added of our activities, and to deal effectively with the challenges we face. After all, we all want to maintain a fair and equitable commercial measurement system. So, I want to close by taking this opportunity to reaffirm NIST's commitment to that admirable goal and to collaborating with all of you to achieve it as we "move strategically into the future".

I am grateful for the opportunity to share these remarks with you today and I wish you the best for a successful conference. Thank you.

Chairman's Address
National Conference on Weights and Measures
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July 15, 2003

Ross J. Andersen
New York State Department of Agriculture and Markets

Honored guests, members, and friends, it is my great privilege to welcome you to Sparks, Nevada and the 88th Annual Meeting of the National Conference on Weights and Measures. I, and the Board of Directors, thank you for your participation.

Serving as Chairman has been a very rewarding experience. I look back at a long line of men and women who served before me, and feel honored to be listed among them. I learned as they did, that you don't so much run this organization, but rather influence it a little. Sort of like trying to keep it pointed in the right direction. It has been demanding, but as Shakespeare wrote, "To business that we love, we rise betime and go to't with delight."

The NCWM is nearing 100 years of age but the Corporation is only five. We are on the move and I chose my theme of "Moving Strategically into the Future" to reflect our approach. I am here to report that the strategic plan it is alive and well. I had the privilege to be the first Chairman to really work the plan. I looked to work on those things in the plan that had to come first, essentially lay the foundations. Others will complete the work. The key is to get started, as the poet Horace wrote, "He has the deed half done who has made a beginning."

Let me start with infrastructure issues. One of our goals is financial security. Your Board of Directors has worked at building zero-based budgets over the last three years so that we could move forward and remain self-supporting. Well over half of our budget funds NTEP. Add in the Interim and Annual Meetings and you will quickly see that there is only a very small piece of the pie that we can call discretionary. We constantly look for alternative, non-dues revenues to support our activities.

The Board is also looking at our relationship with our technical advisors both from Measurement Canada and NIST. It was my great privilege to attend the Canadian Forum on Trade and Measurement last fall, along with Will Whotthlie and Diane Lee. We each felt honored to be able to add to their meetings as they have done so ably for us. When advisors cross borders, there is some natural reluctance to speak out, since it is not your country's laws and regulations. However, we have so much to offer each other and so much to gain from our cooperation, that we should not hesitate. I reported to the Board that we should continue our participation in future Forums and look for other ways to help our neighbors. My thanks to Alan Johnston and all the Measurement Canada staff for their support, their friendship and their hospitality.

Similarly we have been looking closely at our relationship with the NIST Weights and Measures Division (WMD). We have been meeting with the WMD leadership and staff to coordinate priorities and activities as we work together for the benefit of the entire community. I am pleased with many of our successes, particularly with respect to OIML and training. I will elaborate on these a little later. I want to express my sincere appreciation for all of the support provided by Henry Oppermann and his staff to the success of this Organization.

NTEP is our most visible program. I believe our NTEP staff and our participating labs have created a very responsive program. As to quality, our labs are upgrading their quality systems to ISO 17025 and we have a round robin in progress to evaluate uniformity. We constantly seek improvements and spent time at our lab meeting this spring paring down the unmanageable list of scale and measuring device types, harmonizing vehicle scale test procedures, harmonizing various LMD tests that varied between codes, and discussing gray areas surrounding security seals. The problem we face is that code changes lag behind technological change. While manufacturers are pushing the envelope, we are trying to make antiquated specifications fit new and very complex issues. So expect to see more issues coming to the S&T Committee from the sector meetings this fall.

In the NTEP area, the Board has formulated a plan to ensure that production meets type. We aimed to improve initial verification, review certificates periodically, and require certified quality assurance from manufacturers of devices subject to influence factors in order to provide assurances that production devices continue to conform. The Board listened

intently to the comments received yesterday but did not yet have time to address them. We will continue to work on the details and provide opportunities for additional comment as that work progresses.

At the open hearings yesterday we heard concerns about our voting structure. The Board shares your concerns on this difficult issue. The Board will look seriously over the coming year at possible changes to the By-laws.

One major component of the Strategic Plan was to make the organization more nimble. By this I mean flexible enough to respond to both long- term goals and short-term interests. The Board has focused on using smaller work groups instead of fixed committees to do more of the work. Our proposal to restructure the A&P Committee to a work group was just such a move. Smaller work groups make it possible to get the right people working on the issues. They also can do it faster and cheaper using conference calls and email to replace travel to meetings. We also try to break down the work into smaller, more manageable pieces and reduce the commitment by volunteers.

The membership reaction to our A&P proposal clearly indicates to us that we, as a Board, need to do a better job of communicating with our stakeholders. We hear you, and in particular, your desire for some rapid movement on the National Training Program. That has been our desire from the beginning. Following the open hearings we decided on a course of action. We will disband the A&P Committee as planned. However, instead of just making a work group, we will immediately create a new Professional Development Standing Committee utilizing the current members of the A&P Committee with responsibility to spearhead work on the National Training Program. The name was chosen to reflect the new, more focused, direction. The Board will be drafting a specific charge for this new committee, filling the vacancies, and providing necessary support. As a standing committee we will be able to maintain the network connecting the NCWM to the regionals and the membership in related areas. This certainly allows us to reach out to those who don't attend these meeting.

After the infrastructure, I focused on laying foundations in three major program areas, statistics, harmonization with OIML, and the National Training Program.

We need facts to support our programs, particularly in these difficult times. So I created a small workgroup to gather statistics. I am pleased to report that we have survey responses from 40 states, and that the data is now being analyzed. The survey not only looked at the number of devices, inspections and tests, but also the demographics of the states and differences in programs. My thanks to Craig Leisey and his work group. Our next step is to look carefully at the data and conduct follow-up interviews. The workgroup will look for differences in the way states gather and report their statistics. They have been asked to suggest a plan to standardize data collection among the states and form the basis of an annual survey for the NCWM. We want to create a collection of meaningful information on the scope and successes of our weights and measures programs.

The survey confirmed the tremendous state and local contribution for weights and measures in this country, with annual budgets totaling well over \$100 million dollars. The total federal commitment is probably not even 5% of that. Aves Thompson is working on one avenue to increase that commitment in the Fair Measurement Appropriation. We need to find ways to support this effort and get it through Congress.

On the OIML front, the US is an island in the world community. That separation is not so much that we use customary instead of metric units, but more that we have different technical requirements. That limits the competitiveness of our industry in the world market. We must ask ourselves if the differences are really necessary? The US has treaty obligations to consider OIML recommendations. That obligation falls squarely on the shoulders of the NCWM and its members, since we set the standards for commercial weighing and measuring devices in the US.

The NCWM is approaching this vital issue from a number of angles. First, we are trying to get more participation on the US working groups reviewing the work of OIML technical committees. Second, we are cooperating with industry and the WMD to educate our state and local leaders about OIML. We gave joint presentations on OIML to the two regionals that met in the spring this year and will continue that for the two in the fall. A presentation at this meeting addressed current opportunities to impact the OIML process. Third, we are seriously looking at the differences between US and OIML requirements. Our goal is to break those differences down into three areas, where OIML should change, where Handbook 44 should change, and where we can harmonize by changing Publication 14. The WMD is sponsoring a work group this fall to look at recommendations in the comparative study of US and OIML scale requirements and set goals and priorities for work toward harmonization. Finally, we want to consider additional mutual acceptance arrangements with other nations, much like the arrangement we now have with Measurement Canada. Please note we expanded that arrangement this year to include some measuring devices.

With regard to training, most of us would agree that our National Training Program needs revision. I want to paraphrase former Chairman Wes Diggs, who articulated that we need a training plan that doesn't tell states how to train but rather what the outcomes should be. I believe I have followed in his footsteps when I asked the A&P Committee to develop a training outline to help us all agree on outcomes. I want to thank the WMD for sponsoring a meeting in mid-June to look at this issue. In those discussions of a national program there were questions of who would develop it, how we would prepare instructors to deliver it, and how we would evaluate its effectiveness. Those are important considerations, but a little premature. We don't even know what "it" is. The training outline I am hoping to develop should pin that down and help organize the curriculum to help answer those other questions.

A training outline, I believe, will naturally result in a hierarchy of weights and measures knowledge grouped in what educators call "common bodies of knowledge." In the process we separate curriculum development from delivery. We create smaller, pre-fabricated blocks, or units, that are mixed and matched to produce training courses. We also can separate basic material from advanced material. With an outline, many can work on the curriculum materials at the same time. Each can work on the piece that is of interest to them, and we all share the final products. The outline serves as a roadmap keeping us all on course. We can also use alternative delivery methods like the Introduction to Weights and Measures course now being developed internally by the State of California on CDROM. California has offered to let the NCWM use and distribute the material. The parts that we have seen could translate easily into a national program.

Most of all I want to eliminate the one-size-fits-all approach that I believe doomed the present program. It always seemed that jurisdictions were asking for short courses. I think they were saying that the student needs to be part of the equation and that part is missing in our current program. The mix and match concept easily allows the jurisdiction to select the parts they need to teach to their students. Neither the NCWM nor the WMD will have resources to do all the training. Our primary roles will instead be in curriculum development, train-the-trainer programs, and perhaps certification. The states will have to take the lead in the delivery and even basic evaluation. So let's use our new standing committee to create the outline and then work together to develop the curriculum to raise the bar for all weights and measures professionals.

Before I close, let me make one final observation. The National Bureau of Standards formed the NCWM in 1905, and for 90 some years it has been a parent-child relationship. The NCWM has grown up. Our relationship must now evolve into a peer-peer relationship. This means changes, and that is hard for both partners. If everyone is to "buy in" then we must all have the opportunity to share in the decision-making. We must find the maturity to avoid that all too common state-federal conflict that always seems to focus on "who" is in control rather than the quality of the decision. We all have to leave our egos at the door.

The strategic plan has set out what the Board intends to do, including taking active roles in the areas of training and in OIML harmonization. State and local jurisdictions must accept responsibility to be more professional, and to be less parochial, taking a broader world-view. We must all work more closely together, and work smarter, as a team.

At the same time, the WMD has to change as well. Decision-making must be less centralized and involve more people with more knowledge. There is a great deal of talent at the state and local level, and, like the staff at the WMD, we share a love and passion for the work. We have the regulatory authority for weights and measures in the US system, shared only with specific, federal regulatory agencies like USDA, FDA and FTC. The WMD has the capability to devote staff time and resources to some issues that state and local officials often can't. But, they can't be making the decisions for us. Our advisors must work with us to ensure we have the necessary facts to make a good decision. Let's make sure we do that as peers and partners, looking carefully to help each other and to avoid competing. There is certainly enough work to go around and incentives to partner to get it done right.

I have a few people to thank. First, I must thank the members of the Board of Directors. It has been my pleasure to work with you and I appreciate all of your support. A very special thank you goes to Lou Straub. He's one of those that went the extra mile for this organization and he has been a very important advisor during my term. Lou has been an outstanding NTEP Chairman for the last two years and I hope he now finds time to get back out on the golf course and spend more time with Debbie.

I want to thank the NCWM staff who helped me in so many ways and I'm sure will continue to do so in my year as NTEP Chair. Beth, Bev, Steve, Grace, Laura, Linda, and Lynn, thank you. I want to thank my office staff and especially my Assistant Director, Mike Sikula. They all pulled extra weight as I delegated a lot over the last two years. I am equally appreciative for the support of my boss, Deputy Commissioner Margaret Becker.

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Last and certainly most important is my family, my wife Carole and my son Adam. They have been so supportive, and I really appreciate it. Adam attended his first weights and measures meeting at two months of age and now is tall enough to look me in the eye. Carole teases me about not being able to take it easy even when I do step down. I guess she's right. What am I saying, "I guess?" She is always right. Thank you both.

My career in weights and measures still has a few years to go, I hope, and I will be watching my successors build on the foundations I worked on during my term. I have been asked several times in the last few weeks about the issue of continuity within the NCWM leadership. Those asking were pleased with the things the NCWM is doing now, but wondered if those efforts would continue under future Chairmen. The questions came from different people and in relation to different issues. I was proud to be able to respond that I was just working the strategic plan, and I have confidence that my successors, both Dennis and Dave, and those that will follow them, share that commitment.

Thank you for the honor of being your Chairman.

NCWM 2003 Annual Meeting Honor Award Recipients

Name	Firm	Number of Years
Leon Lammers	Weigh-Tronix Inc.	10
Neal J. Nover	Nover Engelstein & Assoc., Inc./ Win Wam Software	10
Michael S. Pinagel	Michigan Department of Agriculture	10
Michael F. Grenier	New Hampshire Department of Agriculture, Markets & Food	15
Gale Prince	Kroger Company	15
David W. Quinn	Fairbanks Scales	15
Vernon Lee Massey	Shelby County Weights & Measures	20